







## SECTION I

NM 41/99

CHART 11309

NM 41/99

| CORPUS CHRISTI CHANNEL DEPTHS   |                            |                           |                            |                             |                |                    |                            |                         |
|---|----------------------------|---------------------------|----------------------------|-----------------------------|----------------|--------------------|----------------------------|-------------------------|
| TABULATED FROM SURVEYS BY THE CORPS OF ENGINEERS - REPORT OF MAY 1999                 |                            |                           |                            |                             |                |                    |                            |                         |
| CONTROLLING DEPTHS FROM SEAWARD IN FEET AT MEAN LOWER LOW WATER (MLLW)                |                            |                           |                            |                             |                | PROJECT DIMENSIONS |                            |                         |
| NAME OF CHANNEL   | LEFT<br>OUTSIDE<br>QUARTER | LEFT<br>INSIDE<br>QUARTER | RIGHT<br>INSIDE<br>QUARTER | RIGHT<br>OUTSIDE<br>QUARTER | DATE OF SURVEY | WIDTH<br>(FEET)    | LENGTH<br>(NAUT.<br>MILES) | DEPTH<br>MLLW<br>(FEET) |
| ARANSAS PASS OUTER BAR  | 44.0                       | 45.0                      | 44.0                       | 42.0                        | 2-99           | 700-800            | 2.42                       | 47                      |
| JETTY CHANNEL TO CLINE POINT  | 45.0                       | 44.0                      | 46.0                       | 43.0                        | 2-99           | 600                | 1.28                       | 47-45                   |
| INNER BASIN AT HARBOR ISLAND  | 45.0                       | 45.0                      | 40.0                       | 38.0                        | 6-98           | 600-1559           | 0.5                        | 45                      |
| CLINE POINT TO WEST END   |                            |                           |                            |                             |                |                    |                            |                         |
| HUMBLE OIL CO. BASIN  | 47.0                       | 45.0                      | 40.0                       | 46.0                        | 6-98           | 600                | 0.5                        | 45                      |
| THENCE TO CORPUS CHRISTI  | 36.0                       | 42.0                      | 44.0                       | 40.0                        | 6-98;12-98     | 600-300            | 18.3                       | 45                      |
| CHANNEL TO LA QUINTA  | 46.0                       | 47.0                      | 46.0                       | 45.0                        | 10-98          | 300-400            | 4.7                        | 45                      |
| TURNING BASIN   | 46.0                       | 48.0                      | 48.0                       | 48.0                        | 10-98          | 1200               | .35                        | 45                      |
| NOTE - CONSULT THE CORPS OF ENGINEERS FOR CHANGES SUBSEQUENT TO THE ABOVE INFORMATION |                            |                           |                            |                             |                |                    |                            |                         |

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| CORPUS CHRISTI CHANNEL DEPTHS   |                            |                           |                            |                             |                |                    |                            |                         |
|---|----------------------------|---------------------------|----------------------------|-----------------------------|----------------|--------------------|----------------------------|-------------------------|
| TABULATED FROM SURVEYS BY THE CORPS OF ENGINEERS - REPORT OF MAY 1999                 |                            |                           |                            |                             |                |                    |                            |                         |
| CONTROLLING DEPTHS FROM SEAWARD IN FEET AT MEAN LOWER LOW WATER (MLLW)                |                            |                           |                            |                             |                | PROJECT DIMENSIONS |                            |                         |
| NAME OF CHANNEL   | LEFT<br>OUTSIDE<br>QUARTER | LEFT<br>INSIDE<br>QUARTER | RIGHT<br>INSIDE<br>QUARTER | RIGHT<br>OUTSIDE<br>QUARTER | DATE OF SURVEY | WIDTH<br>(FEET)    | LENGTH<br>(NAUT.<br>MILES) | DEPTH<br>MLLW<br>(FEET) |
| W END OF HUMBLE OIL CO.   |                            |                           |                            |                             |                |                    |                            |                         |
| BASIN TO CORPUS CHRISTI   | 36.0                       | 42.0                      | 44.0                       | 40.0                        | 6-98;12-98     | 600-300            | 18.3                       | 45                      |
| CORPUS CHRISTI  |                            |                           |                            |                             |                |                    |                            |                         |
| TURNING BASIN   | 47.0                       | 47.0                      | 47.0                       | 47.0                        | 12-98          | 300-800            | 0.96                       | 45                      |
| INDUSTRIAL CANAL  | 47.0                       | 47.0                      | 47.0                       | 47.0                        | 12-98          | 400                | 0.7                        | 45                      |
| AVERY POINT   |                            |                           |                            |                             |                |                    |                            |                         |
| TURNING BASIN   | 46.0                       | 46.0                      | 46.0                       | 46.0                        | 12-98          | 400-975            | 0.3                        | 45                      |
| CHEMICAL TURNING BASIN  | 46.0                       | 46.0                      | 46.0                       | 46.0                        | 12-98          | 400-1200           | 0.3                        | 45                      |
| TULE LAKE CHANNEL   | 46.0                       | 46.0                      | 46.0                       | 46.0                        | 12-98          | 200-400            | 3.5                        | 45                      |
| TULE LAKE TURNING BASIN   | 45.0                       | 46.0                      | 46.0                       | 45.0                        | 12-98          | 300-1200           | 0.3                        | 45                      |
| CHANNEL TO VIOLA  | 47.0                       | 47.0                      | 47.0                       | 47.0                        | 12-98          | 200-300            | 1.6                        | 45                      |
| VIOLA TURNING BASIN   | 47.0                       | 47.0                      | 47.0                       | 47.0                        | 12-98          | 700-900            | 0.16                       | 45                      |
| NOTE - CONSULT THE CORPS OF ENGINEERS FOR CHANGES SUBSEQUENT TO THE ABOVE INFORMATION |                            |                           |                            |                             |                |                    |                            |                         |

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| CORPUS CHRISTI CHANNEL DEPTHS   |                            |                           |                            |                             |                |                    |                            |                           |
|---|----------------------------|---------------------------|----------------------------|-----------------------------|----------------|--------------------|----------------------------|---------------------------|
| TABULATED FROM SURVEYS BY THE CORPS OF ENGINEERS - REPORT OF MAY 1999                 |                            |                           |                            |                             |                |                    |                            |                           |
| CONTROLLING DEPTHS FROM SEAWARD IN METERS AT MEAN LOWER LOW WATER (MLLW)              |                            |                           |                            |                             |                | PROJECT DIMENSIONS |                            |                           |
| NAME OF CHANNEL   | LEFT<br>OUTSIDE<br>QUARTER | LEFT<br>INSIDE<br>QUARTER | RIGHT<br>INSIDE<br>QUARTER | RIGHT<br>OUTSIDE<br>QUARTER | DATE OF SURVEY | WIDTH<br>(METERS)  | LENGTH<br>(NAUT.<br>MILES) | DEPTH<br>MLLW<br>(METERS) |
| ARANSAS PASS OUTER BAR  | 13.4                       | 13.7                      | 13.4                       | 12.8                        | 6-98           | 213-183            | 2.42                       | 14.3                      |
| JETTY CHANNEL TO CLINE POINT  | 13.7                       | 13.4                      | 14.0                       | 13.1                        | 6-98           | 183                | 1.28                       | 14.3-                     |
| INNER BASIN AT HARBOR ISLAND  |                            |                           |                            |                             |                |                    |                            | 13.7                      |
| CLINE POINT TO WEST END   | 13.7                       | 13.7                      | 12.2                       | 11.6                        | 6-98           | 183-475            | 0.5                        | 13.7                      |
| HUMBLE OIL CO. BASIN  | 14.3                       | 13.7                      | 12.2                       | 14.0                        | 6-98           | 183                | 0.5                        | 13.7                      |
| THENCE TO CORPUS CHRISTI  | 10.9                       | 12.8                      | 13.4                       | 12.2                        | 6-98;12-98     | 183-91             | 18.3                       | 13.7                      |
| CHANNEL TO LA QUINTA  | 14.0                       | 14.3                      | 14.0                       | 13.7                        | 10-98          | 91-121             | 4.7                        | 13.7                      |
| NOTE - CONSULT THE CORPS OF ENGINEERS FOR CHANGES SUBSEQUENT TO THE ABOVE INFORMATION |                            |                           |                            |                             |                |                    |                            |                           |

## SECTION I

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| MIAMI HARBOR CHANNEL<br>TABULATED FROM SURVEYS BY THE CORPS OF ENGINEERS - REPORT OF JUL 1997<br>AND SURVEYS TO AUG 1998  |                            |                           |                            |                             |                |                    |                            |                         |
|---|----------------------------|---------------------------|----------------------------|-----------------------------|----------------|--------------------|----------------------------|-------------------------|
| CONTROLLING DEPTHS FROM SEAWARD IN FEET AT MEAN LOWER LOW WATER (MLLW)  |                            |                           |                            |                             |                | PROJECT DIMENSIONS |                            |                         |
| NAME OF CHANNEL   | LEFT<br>OUTSIDE<br>QUARTER | LEFT<br>INSIDE<br>QUARTER | RIGHT<br>INSIDE<br>QUARTER | RIGHT<br>OUTSIDE<br>QUARTER | DATE OF SURVEY | WIDTH<br>(FEET)    | LENGTH<br>(NAUT.<br>MILES) | DEPTH<br>MLLW<br>(FEET) |
| OUTER BAR CUT   | 40.5                       | 44.4                      | 44.7                       | 44.4                        | 7,8-98         | 500                | 1.5                        | 44                      |
| WIDENER A   | 45.4                       | 45.1                      | 44.4                       | 43.4                        | 7,8-98         | 0-600              | 0.55                       | 44                      |
| BAR CUT   | 44.5                       | 44.5                      | 42.3                       | 37.5                        | 7,8-98         | 500                | 0.73                       | 44                      |
| GOVERNMENT CUT  | 42.7                       | 43.8                      | 42.9                       | 42.8                        | 7,8-98         | 500                | 0.66                       | 42                      |
| MAIN CHANNEL  | 37.7                       | 37.1                      | 37.3                       | 35.5                        | 7,8-98         | 400                | 2.44                       | 36                      |
| FISHERMANS CHANNEL B  |                            |                           |                            |                             |                |                    |                            |                         |
| LUMMUS ISLAND CUT   | 28.9                       | 32.0                      | 32.0                       | 27.4                        | 7,8-98         | 400-750            | 0.95                       | 42                      |
| LUMMUS ISLAND TURNING BASIN C   | 20.0 D                     | 28.9                      | 31.5                       | 25.1                        | 7,8-98         | 400-2025           | 0.35                       | 42                      |
| DODGE ISLAND CUT  | 6.7                        | 23.5                      | 24.7                       | 21.5                        | 7,9-91;11-95   | 500                | 0.57                       | 30                      |
| A. WIDENER LOCATED AT THE JUNCTION OF OUTER BAR CUT AND BAR CUT REACH.<br>B. NOT A CORPS OF ENGINEERS PROJECT. CONSULT PORT OF MIAMI FOR CHANGES SUBSEQUENT TO THE ABOVE INFORMATION<br>(305)371-7678<br>C. SHOALING TO 10 FT, 100' FROM WEST END OF TURNING BASIN<br>D. SHOALING TO 6' AT 25°45'54.3" 80°09'46.8"<br>NOTE - CONSULT THE CORPS OF ENGINEERS FOR CHANGES SUBSEQUENT TO THE ABOVE INFORMATION |                            |                           |                            |                             |                |                    |                            |                         |

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| MIAMI HARBOR CHANNEL<br>TABULATED FROM SURVEYS BY THE CORPS OF ENGINEERS - REPORT OF JUL 1997<br>AND SURVEYS TO AUG 1998   |                            |                           |                            |                             |                |                    |                            |                         |
|--|----------------------------|---------------------------|----------------------------|-----------------------------|----------------|--------------------|----------------------------|-------------------------|
| CONTROLLING DEPTHS FROM SEAWARD IN FEET AT MEAN LOWER LOW WATER (MLLW)   |                            |                           |                            |                             |                | PROJECT DIMENSIONS |                            |                         |
| NAME OF CHANNEL  | LEFT<br>OUTSIDE<br>QUARTER | LEFT<br>INSIDE<br>QUARTER | RIGHT<br>INSIDE<br>QUARTER | RIGHT<br>OUTSIDE<br>QUARTER | DATE OF SURVEY | WIDTH<br>(FEET)    | LENGTH<br>(NAUT.<br>MILES) | DEPTH<br>MLLW<br>(FEET) |
| OUTER BAR CUT  | 40.5                       | 44.4                      | 44.7                       | 44.4                        | 7,8-98         | 500                | 1.5                        | 44                      |
| WIDENER A  | 45.4                       | 45.1                      | 44.4                       | 43.5                        | 7,8-98         | 0-600              | 0.55                       | 44                      |
| BAR CUT  | 44.5                       | 44.5                      | 42.3                       | 37.5                        | 7,8-98         | 500                | 0.73                       | 44                      |
| GOVERNMENT CUT   | 42.7                       | 43.8                      | 42.9                       | 42.8                        | 7,8-98         | 500                | 0.66                       | 42                      |
| MAIN CHANNEL   | 37.7                       | 37.1                      | 37.3                       | 35.5                        | 7,8-98         | 400                | 2.44                       | 36                      |
| FISHERMANS CHANNEL B   |                            |                           |                            |                             |                |                    |                            |                         |
| LUMMUS ISLAND CUT  | 28.9                       | 32.0                      | 32.0                       | 27.4                        | 7,8-98         | 400-750            | 0.95                       | 42                      |
| LUMMUS ISLAND TURNING BASIN C  | 20.0 D                     | 28.9                      | 31.5                       | 25.1                        | 7,8-98         | 400-2025           | 0.35                       | 42                      |
| DODGE ISLAND CUT   | 6.7                        | 23.5                      | 24.7                       | 21.5                        | 7,9-91;11-95   | 500                | 0.57                       | 30                      |
| A. WIDENER LOCATED AT THE JUNCTION OF OUTER BAR CUT AND BAR CUT REACH.<br>B. NOT A CORPS OF ENGINEERS PROJECT. CONSULT PORT OF MIAMI FOR CHANGES SUBSEQUENT TO THE ABOVE INFORMATION<br>(305)371-7678<br>C. SHOALING TO 10 FT, 100' FROM WEST END OF TURNING BASIN<br>D. SHOALING TO 6' AT 25°45'54.3" N, 80°09'46.8" W<br>NOTE - CONSULT THE CORPS OF ENGINEERS FOR CHANGES SUBSEQUENT TO THE ABOVE INFORMATION |                            |                           |                            |                             |                |                    |                            |                         |

CHART 11512

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| SAVANNAH RIVER CHANNEL DEPTHS  |                            |                           |                            |                             |                  |                    |                            |                         |
|--|----------------------------|---------------------------|----------------------------|-----------------------------|------------------|--------------------|----------------------------|-------------------------|
| TABULATED FROM SURVEYS BY THE CORPS OF ENGINEERS - REPORT OF AUG 1999  |                            |                           |                            |                             |                  |                    |                            |                         |
| CONTROLLING DEPTHS FROM SEAWARD IN FEET AT MEAN LOWER LOW WATER (MLLW)   |                            |                           |                            |                             |                  | PROJECT DIMENSIONS |                            |                         |
| NAME OF CHANNEL  | LEFT<br>OUTSIDE<br>QUARTER | LEFT<br>INSIDE<br>QUARTER | RIGHT<br>INSIDE<br>QUARTER | RIGHT<br>OUTSIDE<br>QUARTER | DATE OF SURVEY   | WIDTH<br>(FEET)    | LENGTH<br>(NAUT.<br>MILES) | DEPTH<br>MLLW<br>(FEET) |
| TYBEE RANGE  | 44.5                       | 44.5                      | 44.5                       | 46.0                        | 8-99             | 600                | 3.3                        | 44                      |
| BLOODY POINT RANGE   | 45.0                       | 44.0                      | 44.5                       | 44.0                        | 8-99             | 600                | 3.0                        | 44                      |
| JONES ISLAND RANGE   | 46.0                       | 45.0                      | 45.0                       | 45.0                        | 8-99             | 600                | 1.2                        | 44                      |
| TYBEE KNOLL CUT RANGE  | 44.0                       | 44.0                      | 44.0                       | 42.0                        | 8-99             | 500                | 2.5                        | 42                      |
| NEW CHANNEL RANGE (A)  | 40.0                       | 41.5                      | 43.0                       | 41.0                        | 8-99             | 500                | 1.6                        | 42                      |
| L. I. CROSSING RANGE   | 41.5                       | 44.0                      | 44.5                       | 42.0                        | 8-99             | 500                | 2.6                        | 42                      |
| LOWER FLATS RANGE  | 42.0                       | 46.0                      | 47.0                       | 46.0                        | 8-99             | 500                | 1.3                        | 42                      |
| UPPER FLATS RANGE  | 46.0                       | 47.0                      | 47.0                       | 43.0                        | 8-99             | 500                | 1.2                        | 42                      |
| THE BIGHT CHANNEL  | 47.0                       | 46.0                      | 47.5                       | 44.0                        | 8-99             | 500                | 1.5                        | 42                      |
| FT. JACKSON RANGE  | 45.5                       | 46.0                      | 46.5                       | 42.0                        | 8-99             | 500                | 0.7                        | 42                      |
| OGLETHORPE RANGE   | 41.5                       | 43.0                      | 46.0                       | 44.0                        | 8-99             | 500                | 1.2                        | 42                      |
| WRECKS CHANNEL (B)   | 39.5                       | 41.5                      | 43.5                       | 42.5                        | 8-99             | 500                | 1.5                        | 42                      |
| CITY FRONT CHANNEL   | 43.0                       | 41.5                      | 40.5                       | 35.0                        | 8-99             | 500                | 1.5                        | 42                      |
| MARSH ISLAND CHANNEL (C)   | 43.0                       | 44.5                      | 45.0                       | 41.5                        | 8-99             | 500                | 1.7                        | 42                      |
| KINGS ISLAND CHANNEL (D)   | 38.0                       | 39.0                      | 41.0                       | 42.0                        | 8-99             | 500                | 2.1                        | 42                      |
| WHITEHALL CHANNEL (E)  | 31.0                       | 34.0                      | 36.5                       | 39.0                        | 8-99             | 400                | 0.6                        | 42-36                   |
| PORT WENTWORTH CHANNEL (F)   | 30.0                       | 34.0                      | 33.0                       | 32.0                        | 12-94;11-98;8-99 | 200                | 1.2                        | 30                      |
| A. OYSTER BED I.TURNING BASIN-CONTROLLING DEPTH 43.0 FT, 37.0 FT 100 FT FROM BACKSIDE.<br>B. FIG ISLAND TURNING BASIN-CONTROLLING DEPTH 39.5 FT, 31.5 FT 100 FT FROM BACKSIDE.<br>C. MARSH ISLAND TURNING BASIN-CONTROLLING DEPTH 36.0 FT, 29.5 FT 100 FT FROM BACKSIDE.<br>D. KINGS ISLAND TURNING BASIN-CONTROLLING DEPTH 40.0 FT, 37.0 FT 100 FT FROM BACKSIDE.<br>E. ARGYLE ISLAND TURNING BASIN-CONTROLLING DEPTH 40.0 FT 100 FT FROM BACKSIDE.<br>F. PORT WENTWORTH TURNING BASIN-CONTROLLING DEPTH 33.0 FT, 34.0 FT 100 FT FROM BACKSIDE.<br>NOTE: AT MEAN HIGH WATER, DEPTHS ARE ABOUT 7 FEET GREATER AT LOWER END OF THE HARBOR AND 7.7 FEET<br>GREATER AT UPPER END OF HARBOR.<br>NOTE: FOR THE LEFT OUTSIDE AND RIGHT OUTSIDE QUARTERS, DEPTHS GIVEN REPRESENT CONDITIONS 75 FEET INSIDE THE<br>CHANNEL LIMITS.<br>NOTE- CONSULT THE CORPS OF ENGINEERS FOR CHANGES SUBSEQUENT TO THE ABOVE INFORMATION |                            |                           |                            |                             |                  |                    |                            |                         |

CHART 11514 (SIDE A)

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| SAVANNAH RIVER CHANNEL DEPTHS  |                            |                           |                            |                             |                  |                    |                            |                         |
|--|----------------------------|---------------------------|----------------------------|-----------------------------|------------------|--------------------|----------------------------|-------------------------|
| TABULATED FROM SURVEYS BY THE CORPS OF ENGINEERS - REPORT OF AUG 1999  |                            |                           |                            |                             |                  |                    |                            |                         |
| CONTROLLING DEPTHS FROM SEAWARD IN FEET AT MEAN LOWER LOW WATER (MLLW)   |                            |                           |                            |                             |                  | PROJECT DIMENSIONS |                            |                         |
| NAME OF CHANNEL  | LEFT<br>OUTSIDE<br>QUARTER | LEFT<br>INSIDE<br>QUARTER | RIGHT<br>INSIDE<br>QUARTER | RIGHT<br>OUTSIDE<br>QUARTER | DATE OF SURVEY   | WIDTH<br>(FEET)    | LENGTH<br>(NAUT.<br>MILES) | DEPTH<br>MLLW<br>(FEET) |
| OGLETHORPE RANGE   | 41.5                       | 43.0                      | 46.0                       | 44.0                        | 8-99             | 500                | 1.2                        | 42                      |
| WRECKS CHANNEL (A)   | 39.5                       | 41.5                      | 43.5                       | 42.5                        | 8-99             | 500                | 1.5                        | 42                      |
| CITY FRONT CHANNEL   | 43.0                       | 41.5                      | 40.5                       | 35.0                        | 8-99             | 500                | 1.5                        | 42                      |
| MARSH ISLAND CHANNEL (B)   | 43.0                       | 44.5                      | 45.0                       | 41.5                        | 8-99             | 500                | 1.7                        | 42                      |
| KINGS ISLAND CHANNEL (C)   | 38.0                       | 39.0                      | 41.0                       | 42.0                        | 8-99             | 500                | 2.1                        | 42                      |
| WHITEHALL CHANNEL (D)  | 31.0                       | 34.0                      | 36.5                       | 39.0                        | 7-99             | 400                | 0.6                        | 42-36                   |
| PORT WENTWORTH CHANNEL (E)   | 30.0                       | 34.0                      | 33.0                       | 32.0                        | 12-94;11-98;8-99 | 200                | 1.2                        | 30                      |
| A. FIG ISLAND TURNING BASIN-CONTROLLING DEPTH 39.5 FT, 31.5 FT 100 FT FROM BACKSIDE.<br>B. MARSH ISLAND TURNING BASIN-CONTROLLING DEPTH 36.0 FT, 29.5 FT 100 FT FROM BACKSIDE.<br>C. KINGS ISLAND TURNING BASIN-CONTROLLING DEPTH 40.0 FT, 37.0 FT 100 FT FROM BACKSIDE.<br>D. ARGYLE ISLAND TURNING BASIN-CONTROLLING DEPTH 40.0 FT 100 FT FROM BACKSIDE.<br>E. PORT WENTWORTH TURNING BASIN-CONTROLLING DEPTH 33.0 FT, 34.0 FT 100 FT FROM BACKSIDE.<br>NOTE: AT MEAN HIGH WATER, DEPTHS ARE ABOUT 7 FEET GREATER AT LOWER END OF THE HARBOR AND 7.7 FEET<br>GREATER AT UPPER END OF HARBOR.<br>NOTE: FOR THE LEFT OUTSIDE AND RIGHT OUTSIDE QUARTERS, DEPTHS GIVEN REPRESENT CONDITIONS 75 FEET INSIDE THE<br>CHANNEL LIMITS.<br>NOTE- CONSULT THE CORPS OF ENGINEERS FOR CHANGES SUBSEQUENT TO THE ABOVE INFORMATION |                            |                           |                            |                             |                  |                    |                            |                         |

## SECTION I

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| CHRISTINA RIVER CHANNEL DEPTHS<br>TABULATED FROM SURVEYS BY THE CORPS OF ENGINEERS - REPORT OF AUG 1999<br>AND SURVEYS TO AUG 1999 |                            |                              |                             |                |                    |                           |                 |
|--|----------------------------|------------------------------|-----------------------------|----------------|--------------------|---------------------------|-----------------|
| CONTROLLING DEPTHS FROM SEAWARD IN FEET AT CHRISTINA RIVER DATUM   |                            |                              |                             |                | PROJECT DIMENSIONS |                           |                 |
| NAME OF CHANNEL  | LEFT<br>OUTSIDE<br>QUARTER | MIDDLE<br>HALF OF<br>CHANNEL | RIGHT<br>OUTSIDE<br>QUARTER | DATE OF SURVEY | WIDTH<br>(FEET)    | LENGTH<br>(NAUT<br>MILES) | DEPTH<br>(FEET) |
| ENTRANCE CHANNEL TO<br>THE UPPER END OF THE<br>TURNING BASIN   | 28.8                       | 29.3                         | 30.4                        | 8-99           | 500-340            | 0.70                      | 38              |
| THENCE TO THE LOBDELL CANAL<br>TURNING BASIN   | 34.3                       | 33.3                         | 32.8                        | 8-99           | 400                | 0.33                      | 35              |
| (OPPOSITE TERMINAL WHARF)  | 34.9                       | 34.9                         | 34.9                        | 8-99           | 320                | 0.34                      | 38              |
| NOTE - CONSULT THE CORPS OF ENGINEERS FOR CHANGES SUBSEQUENT TO THE ABOVE INFORMATION  |                            |                              |                             |                |                    |                           |                 |

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| CHRISTINA RIVER CHANNEL DEPTHS<br>TABULATED FROM SURVEYS BY THE CORPS OF ENGINEERS - REPORT OF AUG 1999<br>AND SURVEYS TO AUG 1999 |                            |                              |                             |                |                    |                           |                 |
|--|----------------------------|------------------------------|-----------------------------|----------------|--------------------|---------------------------|-----------------|
| CONTROLLING DEPTHS FROM SEAWARD IN FEET AT CHRISTINA RIVER DATUM   |                            |                              |                             |                | PROJECT DIMENSIONS |                           |                 |
| NAME OF CHANNEL  | LEFT<br>OUTSIDE<br>QUARTER | MIDDLE<br>HALF OF<br>CHANNEL | RIGHT<br>OUTSIDE<br>QUARTER | DATE OF SURVEY | WIDTH<br>(FEET)    | LENGTH<br>(NAUT<br>MILES) | DEPTH<br>(FEET) |
| ENTRANCE CHANNEL TO<br>THE UPPER END OF THE<br>TURNING BASIN   | 28.8                       | 29.3                         | 30.4                        | 8-99           | 500-340            | 0.70                      | 38              |
| THENCE TO THE LOBDELL CANAL<br>TURNING BASIN   | 34.3                       | 33.3                         | 32.8                        | 8-99           | 400                | 0.33                      | 35              |
| (OPPOSITE TERMINAL WHARF)  | 34.9                       | 34.9                         | 34.9                        | 8-99           | 320                | 0.34                      | 38              |
| NOTE - CONSULT THE CORPS OF ENGINEERS FOR CHANGES SUBSEQUENT TO THE ABOVE INFORMATION  |                            |                              |                             |                |                    |                           |                 |

CHART 12327

NM 41/99

| ARTHUR KILL, KILL VAN KULL, NEWARK BAY,<br>PASSAIC AND HACKENSACK RIVERS CHANNEL DEPTHS<br>TABULATED FROM SURVEYS BY THE CORPS OF ENGINEERS-<br>REPORT OF JUN 1999 AND SURVEYS TO MARCH 1999   |                         |                 |                |
|--|-------------------------|-----------------|----------------|
| CONTROLLING DEPTHS FROM SEAWARD IN FEET AT MEAN LOWER LOW WATER<br>(MLLW)  |                         |                 |                |
| NAME OF CHANNEL  | DEPTH<br>MLLW<br>(FEET) | WIDTH<br>(FEET) | DATE OF SURVEY |
| ARTHUR KILL (OUTERBRIDGE REACH<br>TO N. OF SHOOTERS I. REACH)  | A18.8                   | 800-500         | 12-92;1-93     |
| KILL VAN KULL (CONSTABLE HOOK<br>REACH TO BERGEN PT. WEST REACH)   | 34.0                    | 2000-800        | 12-96;2-97     |
| S. OF SHOOTERS I. REACH  | B5.0                    | 400             | 8-90           |
| NEWARK BAY (NEWARK BAY S.<br>REACH TO DROYERS PT. REACH)   | C17.0                   | 1750-300        | 3-99           |
| PASSAIC RIVER (KEARNY PT. REACH<br>TO ARLINGTON REACH)   | D,E0.8                  | 300-200         | 6,11-89;2,3-98 |
| HACKENSACK RIVER (DROYERS PT.<br>REACH TO TURNING BASIN)   | 19.3                    | 300-800         | 10,11-98       |
| <p>A. A DEPTH OF 32.5 FEET WAS AVAILABLE IN THE MIDDLE HALF.</p> <p>B. OBSTRUCTIONS INTERSPERSED IN THE TWO RIGHT QUARTERS.<br/>THERE IS A MINIMUM DEPTH OF 5.9 FEET OVER WRECKAGE.</p> <p>C. A DEPTH OF 22.4 FEET WAS AVAILABLE IN THE MIDDLE HALF.<br/>EXCEPT FOR SHOALING TO 9 FT AT 40° 42' 11.4" N 74° 06' 56.1" W.</p> <p>D. A DEPTH OF 6.5 FEET WAS AVAILABLE IN THE MIDDLE HALF.</p> <p>E. SHOALING TO BARE ALONG THE LEFT OUTSIDE QUARTER AT THE TURN AT<br/>40°45'43"N, 74°09'49"W.</p> <p>NOTE 1. SEE LARGE SCALE CHARTS FOR MORE DETAIL OF REACHES.</p> <p>NOTE - CONSULT THE CORPS OF ENGINEERS FOR CHANGING CONDITIONS<br/>SUBSEQUENT TO THE ABOVE</p> |                         |                 |                |



## SECTION I

NM 41/99

CHART 12333

NM 41/99

| ARTHUR KILL, KILL VAN KULL, NEWARK BAY AND UPPER BAY CHANNEL DEPTHS      |                            |                           |                            |                             |                |                    |                            |                         |
|--|----------------------------|---------------------------|----------------------------|-----------------------------|----------------|--------------------|----------------------------|-------------------------|
| TABULATED FROM SURVEYS BY THE CORPS OF ENGINEERS - SURVEYS TO MARCH 1999 |                            |                           |                            |                             |                |                    |                            |                         |
| CONTROLLING DEPTHS FROM SEAWARD IN FEET AT MEAN LOWER LOW WATER (MLLW)   |                            |                           |                            |                             |                | PROJECT DIMENSIONS |                            |                         |
| NAME OF CHANNEL  | LEFT<br>OUTSIDE<br>QUARTER | LEFT<br>INSIDE<br>QUARTER | RIGHT<br>INSIDE<br>QUARTER | RIGHT<br>OUTSIDE<br>QUARTER | DATE OF SURVEY | WIDTH<br>(FEET)    | LENGTH<br>(NAUT.<br>MILES) | DEPTH<br>MLLW<br>(FEET) |
| FRESH KILLS REACH  | A25.0                      | 33.8                      | 36.3                       | 31.5                        | 12-92;1-93     | 500                | 1.8                        | 35                      |
| TREMLEY POINT REACH  | 31.0                       | 38.1                      | 36.3                       | 33.1                        | 12-92;1-93     | 600                | 0.9                        | 35                      |
| PRALLS ISLAND REACH  | A25.0                      | 35.5                      | 36.3                       | A28.7                       | 12-92;1-93     | 500                | 1.2                        | 35                      |
| GULFPORT REACH   | A27.5                      | 37.0                      | 36.9                       | 28.4                        | 12-92;1-93     | 500-600            | 1.1                        | 35                      |
| ELIZABETHPORT REACH  | 25.8                       | 35.3                      | 36.5                       | A19.9                       | 12-92;1-93     | 500-600            | 1.1                        | 35                      |
| N OF SHOOTERS ISLAND REACH   | 28.8                       | 32.5                      | 32.5                       | 28.8                        | 12-92;1-93     | 600                | 1.0                        | 35                      |
| S OF SHOOTERS ISLAND REACH   | 18.6                       | 24.1                      | 14.0                       | B 5.0                       | 8-90           | 400                | 1.0                        | 30                      |
| BERGEN PT. WEST REACH  | 39.4                       | 40.0                      | 40.0                       | 37.1                        | 12-96;2-97     | 800                | 1.1                        | 35                      |
| BERGEN PT. EAST REACH  | 37.4                       | 40.0                      | 40.0                       | 39.5                        | 12-96;2-97     | 800                | 1.0                        | 35                      |
| CONSTABLE HOOK REACH   | 34.0                       | 40.0                      | 40.0                       | 34.8                        | 12-96;2-97     | 2000-800           | 2.2                        | 35                      |
| NEWARK BAY SOUTH REACH   | 40.3                       | 40.1                      | 40.2                       | 39.1                        | 3-99           | 1750-1000          | 1.4                        | 40                      |
| NEWARK BAY MIDDLE REACH  | 36.9                       | 40.6                      | 37.6                       | 34.6                        | 3-99           | 1750-500           | 1.4                        | 40                      |
| ELIZABETH CHANNEL  | 39.3                       | 39.8                      | 39.9                       | 39.1                        | 3-99           | 1350-500           | 1.4                        | 40                      |
| PORT NEWARK CHANNEL:   |                            |                           |                            |                             |                |                    |                            |                         |
| PORT NEWARK(BRANCH CHANNEL)  | 36.9                       | 37.9                      | 36.8                       | 35.8                        | 3-99           | 1050-400           | 0.4                        | 40                      |
| PIERHEAD CHANNEL   | 36.5                       | 37.4                      | 35.9                       | 36.0                        | 3-99           | 300                | 0.7                        | 40                      |

A. THE CHANNEL HAS SHOALED ALONG THE EDGE; A DEPTH OF 30 FT WAS AVAILABLE IN THE INSIDE HALF OF QUARTER.  
 B. OBSTRUCTIONS INTERSPERSED IN THE TWO RIGHT QUARTERS. THERE IS A MINIMUM DEPTH OF 5.9 FT OVER WRECKAGE.  
 \* CONTROLLING DEPTHS IN CHANNELS OF RARITAN BAY- EAST REACH TO AND INCLUDING FRESH KILLS REACH ARE REFERENCED FROM SEAWARD WHEN ENTERING FROM LOWER NEW YORK BAY. CONTROLLING DEPTHS FROM CONSTABLE HOOK TO AND INCLUDING TREMLEY POINT REACH ARE REFERENCED FROM SEAWARD WHEN ENTERING FROM UPPER NEW YORK BAY.  
 NOTE - CONSULT THE CORPS OF ENGINEERS FOR CHANGES SUBSEQUENT TO THE ABOVE INFORMATION

CHART 12337

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| NEWARK BAY,PASSAIC AND HACKENSACK RIVERS CHANNEL DEPTHS  |                            |                           |                            |                             |                |                    |                            |                         |
|--|----------------------------|---------------------------|----------------------------|-----------------------------|----------------|--------------------|----------------------------|-------------------------|
| TABULATED FROM SURVEYS BY THE CORPS OF ENGINEERS - REPORT OF JUN 1999<br>AND SURVEYS TO MARCH 1999 |                            |                           |                            |                             |                |                    |                            |                         |
| CONTROLLING DEPTHS FROM SEAWARD IN FEET AT MEAN LOWER LOW WATER (MLLW)                             |                            |                           |                            |                             |                | PROJECT DIMENSIONS |                            |                         |
| NAME OF CHANNEL  | LEFT<br>OUTSIDE<br>QUARTER | LEFT<br>INSIDE<br>QUARTER | RIGHT<br>INSIDE<br>QUARTER | RIGHT<br>OUTSIDE<br>QUARTER | DATE OF SURVEY | WIDTH<br>(FEET)    | LENGTH<br>(NAUT.<br>MILES) | DEPTH<br>MLLW<br>(FEET) |
| NEWARK BAY MIDDLE REACH  | 36.9                       | 40.6                      | 37.6                       | 34.6                        | 3-99           | 1750-500           | 1.4                        | 40                      |
| NEWARK BAY NORTH REACH   | 28.1                       | 35.1                      | 22.8                       | A18.0                       | 3-99           | 900-500            | 1.1                        | 35                      |
| TURNING BASIN  | 24.3                       | 25.4                      | 22.4                       | A17.0                       | 3-99           | 900                | 0.26                       | 35                      |
| PASSAIC RIVER:   |                            |                           |                            |                             |                |                    |                            |                         |
| KEARNY PT REACH  | 17.5                       | 18.9                      | 17.3                       | 13.6                        | 3-99           | 300                | 1.1                        | 30                      |
| POINT NO POINT REACH   | 5.4                        | 9.7                       | 13.5                       | 10.2                        | 6-89; 3-99     | 300                | 1.1                        | 30                      |
| HARRISON REACH   | 1.7                        | 6.5                       | 8.4                        | 2.6                         | 6-89           | 300                | 1.9                        | 20                      |
| NEWARK REACH   | 1.2                        | 8.2                       | 9.5                        | 4.3                         | 6-89           | 300                | 1.3                        | B20                     |
| KEARNY REACH   | C0.8                       | 8.8                       | 8.2                        | 1.2                         | 6-89           | 300                | 0.9                        | B20                     |
| ARLINGTON REACH  | 2.0                        | 6.8                       | 9.1                        | 2.5                         | 6,11-89        | 200                | 0.9                        | 16                      |
| BELLEVILLE REACH   | 0.1                        | 0.4                       | 8.0                        | 9.9                         | 6-92           | 150                | 1.4                        | 10                      |
| NUTLEY REACH   | 2.6                        | 9.2                       | 7.4                        | 3.5                         | 11-89          | 150                | 1.7                        | 10                      |
| RUTHERFORD REACH   | 1.7                        | 5.1                       | 3.8                        | 3.7                         | 11-89          | 150                | 2.2                        | 10                      |
| WALLINGTON REACH   | D2.2                       | 1.5                       | 1.9                        | E1.1                        | 11-89          | 150                | 0.9                        | 10                      |
| HACKENSACK RIVER:  |                            |                           |                            |                             |                |                    |                            |                         |
| DROYERS POINT REACH  | 25.5                       | 28.8                      | 25.8                       | 19.3                        | 10,11-98       | 300-400            | 1.5                        | 30                      |
| MARION REACH   | 27.1                       | 26.7                      | 28.9                       | 22.6                        | 10,11-98       | 300                | 1.8                        | 30                      |
| TURNING BASIN  | 19.2                       | 24.4                      | 29.3                       | 22.6                        | 10,11-98       | 300-800            | 0.2                        | 25                      |
| PORT NEWARK CHANNEL:   |                            |                           |                            |                             |                |                    |                            |                         |
| BRANCH CHANNEL   | 36.9                       | 37.9                      | 36.8                       | 35.8                        | 3-99           | 1050-400           | 0.4                        | 40                      |
| INSHORE CHANNEL  | 38.4                       | 38.9                      | 38.3                       | 36.3                        | 3-99           | 400                | 1.1                        | 35                      |
| PIERHEAD CHANNEL   | 36.5                       | 37.4                      | 35.9                       | 36.0                        | 3-99           | 300                | 0.7                        | 40                      |

A. EXCEPT FOR A SHOAL TO 9 FT AT 40° 42' 11.4" N 74° 06' 56.1" W ALONG THE RIGHT OUTSIDE QUARTER OF THE REACH.  
 B. PROJECT CHANNEL, 20 FEET DEEP, HAS NEVER BEEN DREDGED. DEPTHS SHOWN ARE FOR EXISTING CHANNEL.  
 C. EXCEPT FOR A SHOAL, BARE AT M.L.L.W., ALONG THE LEFT OUTSIDE QUARTER OF THE LAST 380 YARDS OF THE REACH.  
 D. A SHOAL BARE AT M.L.L.W. EXTENDS ACROSS THE LEFT OUTSIDE QUARTER ABOUT 370 YARDS DOWNSTREAM OF THE EIGHTH STREET BRIDGE.  
 E. A SHOAL BARE AT M.L.L.W. EXTENDS ACROSS THE RIGHT OUTSIDE QUARTER ABOUT 300 YARDS NORTH OF THE MAIN ST. BRIDGE AND SHOALING TO 0.3 FEET 175 FEET WEST OF THE SECOND ST. BRIDGE.  
 NOTE - CONSULT THE CORPS OF ENGINEERS FOR CHANGES SUBSEQUENT TO THE ABOVE INFORMATION



Chart 63201 (Plan A)

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| Berth or Pier           | Depth<br>alongside | Year<br>reported |
|-------------------------|--------------------|------------------|
| Cochin Oil Terminal     | 10.9 meters        | 1999             |
| Q10                     | 10.5 meters        | 1999             |
| Ernakulam Wharf (Q5-Q9) | 9.1 meters         | 1999             |
| Tanker Berths           | 9.1 meters         | 1999             |
| Oil Berth               | 7.6 meters         | 1999             |
| North Coal Berth        | 8.2 meters         | 1999             |
| Mattancheri Wharf Q1    | 7.6 meters         | 1999             |
| Mattancheri Wharf Q2    | 7.6 meters         | 1999             |
| Mattancheri Wharf Q3    | 7.6 meters         | 1999             |
| Mattancheri Wharf Q4    | 8.2 meters         | 1999             |
| South Coal Berth        | 7.6 meters         | 1999             |